

REMARKS/ARGUMENTS

Claims 29-50 are pending in this application. Independent claims 29 and 35 have been amended to specify that the polyamide herein is selected from the group consisting of nylon 6, nylon 66, nylon 10, nylon 6-10, nylon 12, amorphous nylon, MXD-6, nylon nanocomposites, and mixtures thereof as disclosed in paragraph [0022] of Applicants' U.S. Patent Publication 2004/0037983A1 of this application. Claim 35 has also been amended to correct an error in part i) since the second oxygen barrier layer is applied directly on the second tie layer, as disclosed in FIG. 1 (i.e., layer 19 is applied on layer 18). Claims 43, 49 and 50 have been amended to correct typographical errors. No new matter has been added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Claims 29-50 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Gibbons et al (USP 4,888,222) in view of Suzuki (USP 4,126,614).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Indeed, both the suggestion and the expectation of success must be found in the prior art, not in the Applicant's disclosure. In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1988) (emphasis added). The Applicants believe that the Examiner has failed to make a *prima facie* case of obviousness for the following reasons.

Gibbons requires a “caulk” or “tie” layer between the “abuse resistant layer” and the “oxygen barrier layer”. See FIGS. 1, 3, 4 and 5; lines 2-12 of column 5; line 60 of column 5 to line 1 of column 6; lines 20-24 of column 6; and lines 40-44 of column 6. The present invention as recited in independent claims 29 and 35 excludes such an intermediate caulk or tie layer by requiring that the first oxygen barrier layer of EVOH be applied directly onto the first polyamide layer. (See part d) of claims 29 and 35.) Note that FIG. 2 of Gibbons does not even have the “abuse resistant” or polyamide layer, and in FIG. 5 the “abuse resistant” or polyamide layer is not applied to the interior surface of the paperboard substrate, as required by Applicants’ claims.

Moreover, Applicants’ claims require that the first polyamide layer consist essentially of one or more selected polyamides and be applied directly onto the interior surface of the paperboard substrate. (See part c) of claims 29 and 35.) The Examiner acknowledges that Gibbons does not disclose a polyamide layer consisting essentially of polyamide, but contends that since Suzuki discloses a polyamide “adhesive caulking agent” it would have been obvious to substitute the Suzuki polyamide material for the caulk of Gibbons to obtain a polyamide layer consisting essentially of polyamide.

First of all, Applicants emphasize that Gibbons shows a caulk layer only in FIGS. 1 and 3. This caulk layer is coextruded with the polyamide layer, and thus the polyamide layer does not consist essentially of a polyamide as required by Applicant’ claims. The caulk and polyamide materials required by Gibbons are separate and distinct materials used for different purposes. Gibbons describes caulks in column 8, lines 14-22 as being high strength, low viscosity caulking resins selected from ionomer type resins, such as the preferred zinc or sodium salts of ethylene methacrylic acid (Surlyn 1652 or the like); ethylene acrylic acid copolymers; ethylene methacrylic acid copolymers; ethylene vinyl acetate copolymers; ethylene

methyacrylate copolymers; and the like. None of these materials are polyamides such as described in column 8, lines 4-13 of Gibbons (or in Suzuki). A person of ordinary skill in the art would have no reason to delete the caulk required by Gibbons and substitute a chemically different polyamide material therefore, particularly when polyamide is already required by Gibbons for a different purpose.

Suzuki discloses 3-oxacaprolactams useful for preparing low molecular weight hydrophilic polyamides having a low melting point. These hydrophilic polyamides are said to be sticky, rubbery materials at room temperature useful as reusable, adhesive caulking agents (see col. 1, lines 30-34). Such caulking agents are presumably used to seal bathroom fixtures (e.g., to seal a bathtub to the floor or wall) or gaps along a window sill or door frame. Suzuki does not relate to the field of the present invention, a non-foil barrier laminate to improve shelf life of packaged food products, particularly beverages such as fruit and citrus juices.

In contrast to Suzuki's hydrophilic low melting point polyamides, the polyamides of Gibbons are said to be tough, high strength polymeric materials having tensile strengths of 10,000 psi or greater at conventional heat-seal temperatures of 250-500 degrees F. Suzuki teaches away from such polyamides by referring to nylon-6, the polymer of caprolactam, in the Background section of his patent (column 1, line 61). Thus, Suzuki is so remote from the field of Gibbons (and the invention) that one of ordinary skill would have no reason to combine these references, delete the caulk required by Gibbons, and add the low melting point hydrophilic polyamide of Suzuki to the different polyamide material of Gibbons to obtain a laminate and container according to the invention.

Even combining the references as suggested by the Examiner would still not provide a first polyamide layer consisting essentially of one or more polyamides selected from the group

consisting of nylon 6, nylon 66, nylon 10, nylon 6-10, nylon 12, amorphous nylon, MXD-6, nylon nanocomposites, and mixtures thereof, as required by Applicants' claims. As noted above, such polyamide materials are considerably different from the low melting point hydrophilic polyamides of Suzuki, which would not be suitable for the first polyamide layer in Applicants' laminate and container.

In view of the above, it is submitted that Gibbons in view of Suzuki does not disclose or suggest the present invention. The references do not motivate a person of ordinary skill in the art to modify their products to arrive at the claimed invention with a reasonable expectation of success in achieving its advantages. Thus, the cited references are deficient and the rejection should be withdrawn.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully submit this application is in condition for allowance. Reconsideration and allowance of claims 29-50 is requested.

Should the Examiner have any questions about this response, he is invited to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,

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